

EU DECLARATION OF CONFORMITY



This declaration is issued following the Directive 89/106/EEC, relating to construction products

The producer – AQUATECH LTD, 148 A Poznańska Str. 18-400 Łomża, Poland, company code: 7182097870 – declares under our sole responsibility that the product:

BIOLOGICAL TREATMENT PLANTS OF DOMESTIC WASTEWATER
VORTEX 4, VORTEX 6, VORTEX 10, VORTEX 15, VORTEX 20, VORTEX 30, VORTEX 40,

Meet the requirements of the EU Directive 89/106/EEC and all the provisions of Annex ZA to the standard EN 12566-3:2006+A1:2009 „Small wastewater treatment systems for up to 50 PT – Part 3: Packaged and/or site assembled domestic wastewater treatment plants”, if they are installed and maintained according to the requirements, provided in the technical passport of the product by AQUATECH LTD.

Background for declaration: initial type tests and continuous production control, performer by the notified body – public company Certification Centre of Building Products **STATYBOS PRODUKCIJOS SERTIFIKAVIMO CENTRAS**, LT-08217 Vilnius, Lithuania. Notification no. 1397, and the producer's laboratory – Aquatech LTD, 148 A Poznańska Str. 18-400 Łomża, Poland.

After testing of wastewater treatment plants, it has been confirmed the following:

Parameter	Unit of measurement	Defined value	Reference number of test protocols
BOD ₇	%	96,50	1397-CPD-020/B.2
ChDS	%	90,40	1397-CPD-020/B.2
SS	%	94,40	1397-CPD-020/B.2
N	%	93,90	1397-CPD-020/B.2
P	%	53,20	1397-CPD-020/B.2
NH ₄ -N	%	98,90	1397-CPD-020/B.2
Mechanical resistance by applying reference load	-	Positive result	1397-CPD-018/C.6
Tightness	-	Treatment plant is water-tight	1397-CPD-017/A.2
Initial type tests (general dimensions, inlets, outlets and connections, accessibility)	-	Positive result	Aq/2011/07/1

Product description, purpose, usage:

Biological wastewater treatment plant is constructed from three chambers, present in one tank. At first, wastewater, flowing into the plant, enters into chamber with sieve, where thicker pollutions explode by compressed air with splitter suction pump. Then wastewater flows to the second chamber, where it is mixed with activated sludge by the help of air. Compressed air is necessary for supporting life of activated Sludge and internal recirculation of treated wastewater. Air is provided by the help of the compressor (the blower). Biological treatment, i.e. treatment with activated sludge, is based on microorganisms' activities. Decomposition of organic pollutants is based on microorganisms, which are in a free state. Purpose of the process is to bind soluble, colloidal and biogenic substances from wastewater into activated sludge and to separate active sludge. Microorganisms metabolise ("eat up" and decompose) and destroy organic substances. Decomposition of organic materials and formation of activated sludge takes place in the aeration section. Mixture of activated sludge from the aeration chamber enters the external chamber (the secondary settling vessel), where, due to gravity forces, activated sludge separates and falls down into the bottom part of the plant and the separated, treated water lifts up and drains away. If the mass of microorganisms increases, the amount of activated sludge also increases and re-circulated to the aeration chamber.

Sewerage *VORTEX* are intended for treatment of domestic or similar wastewater from the kitchen, bathroom, toilet and other similar-purpose facilities. Avoid entering of rain and surface water into the plant.

AQUATECH LTD
15.07.2011



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AQUATECH Sp. z o.o.
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Wojciech Babinski
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EN 12566-3

Small wastewater treatment systems for up to 50 PT — Part
3: Packaged and/or site assembled domestic wastewater
treatment plants

Type and size

VORTEX 4
VORTEX 6
VORTEX 10
VORTEX 15
VORTEX 20
VORTEX 30
VORTEX 40

Material

PEHD

Effectiveness of treatment

B.O.D. ₇ :	96,50 %
C.O.D.:	90,40 %
SS:	94,40 %
N :	93,90 %
P:	53,20 %
NH ₄ -N:	98,90 %

Daily flow

Daily load of organic substances (B.O.D.₇)

VORTEX 4	0,24 kg/d
VORTEX 6	0,36 kg/d
VORTEX 10	0,60 kg/d
VORTEX 15	0,90 kg/d
VORTEX 20	1,20 kg/d
VORTEX 30	1,80 kg/d
VORTEX 40	2,40 kg/d

Nominal daily flow (Q_d)

VORTEX 4	0,60 m ³ /d
VORTEX 6	0,90 m ³ /d
VORTEX 10	1,50 m ³ /d
VORTEX 15	2,25 m ³ /d
VORTEX 20	3,00 m ³ /d
VORTEX 30	4,50 m ³ /d
VORTEX 40	6,00 m ³ /d

Watertightness

Treatment plant is water-tight

Crushing resistance and maximum load deformation (pit
test)

Positive result

Initial type tests (general dimensions, inlets, outlets and
connections, accessibility)

Positive result

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